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Atty. Dkt. No. 040447-0238

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Takayuki ASAI

Title:

**OBJECT FILTERING METHOD** 

AND CLIENT DEVICE USING

THE SAME

Appl. No.:

09/975,505

Filing Date:

10/12/2001

Examiner:

England, David E.

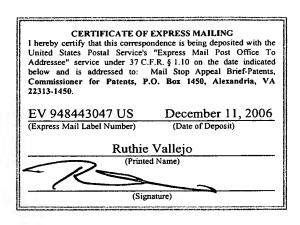
Art Unit:

2143

Confirmation

9792

Number:



# AMENDMENT TRANSMITTAL

Mail Stop Appeal Brief - Patents Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Transmitted herewith is an amendment in the above-identified application.

- [ X ] Appeal Brief 37 CFR 41.37 (23 pages).
- Assertion of Small Entity status is enclosed.
  - [X] The fee required for an Appeal Brief is calculated below:

[	] Extension for response filed within the first month:	\$120.00	\$0.00		
[	] Extension for response filed within the second month:	\$450.00	\$0.00		
[	] Extension for response filed within the third month:	\$1,020.00	\$0.00		
[	] Extension for response filed within the fourth month:	\$1,590.00	\$0.00		
[	] Extension for response filed within the fifth month:	\$2,160.00	\$0.00		
	EXTENSION	FEE TOTAL:	\$0.00		
[	] Statutory Disclaimer Fee under 37 C.F.R. 1.20(d):	\$130.00	\$0.00		
	CLAIMS, EXTENSION AND DISCLAIMER	FEE TOTAL:	\$0.00		
[ 2	[X] Appeal Brief under rule 1.17(c):				
	Extension Fees Previously Paid:		\$0.00		
	TOTAL FEE:				

<sup>[</sup>X] A Credit Card Form in the amount of \$500.00 is enclosed.

[X] The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-0872. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-0872. If any extensions of time are needed for timely acceptance of papers submitted herewith, applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 50-0872.

Please direct all correspondence to the undersigned attorney or agent at the address indicated below.

Respectfully submitted,

Date _	December	11,	2006	By	Aut	Sch
		-				_

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Justin M. Sobaje Attorney for Applicant Registration No. 56,252

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

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# **APPEAL BRIEF UNDER 37 CFR § 41.37**

Mail Stop Appeal Brief - Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Under the provisions of 37 C.F.R. § 41.37, this Appeal Brief is being filed together with a credit card payment form in the amount of \$500.00 covering the 37 C.F.R. 41.20(b)(2) appeal fee. If this fee is deemed to be insufficient, authorization is hereby given to charge any deficiency (or credit any balance) to the undersigned deposit account 50-0872.

#### I. REAL PARTY IN INTEREST:

The present application is assigned to NEC Corporation. The address of the headquarters of NEC Corporation is 7-1, Shiba 5-chome, Minato-ku, Tokyo, Japan.

#### II. RELATED APPEALS AND INTERFERENCES:

There are no related appeals or interferences.

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CERTIFICATE OF EXPRESS MAILING
I hereby certify that this correspondence is being deposited with the United States Postal Service's "Express Mail Post Office To Addressee" service under 37 C.F.R. § 1.10 on the date indicated below and is addressed to: Mail Stop Appeal Brief - Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

EV 948443047 US December 11, 2006
(Express Mail Label Number) (Date of Deposit)

Ruthie Vallejo

(Printed Name)

## III. STATUS OF CLAIMS:

Claims 1-24 are rejected. Claims 1-24 are being appealed.

#### IV. STATUS OF AMENDMENTS:

No amendments have been made subsequent to the final rejection that is appealed here.

## V. SUMMARY OF CLAIMED SUBJECT MATTER:

#### A. Overview:

Fundamental to all of applicant's independent claims is a concept illustrated in applicant's figures. As illustrated in FIG. 1, a terminal may request an object, such as a file or the like, from a server, where the terminal accesses the server through a gateway. Prior to requesting the object, the terminal may establish a session with the gateway. The gateway performs the function of a proxy server, and the gateway is able to filter an object received from the server before the object is forwarded to the terminal, where the gateway carries out such filtering in accordance with conditions specified by the terminal.

As explained in applicant's specification (pages 1-2), related art systems allow for a client or terminal to transmit Capability and Preference Information (CPI) to a gateway when a session is established between the client and the gateway. In such related art systems, the CPI may include various characteristics of the client, such as display size, **color support ability**, **image support ability**, operating system version, browser version, and the like. The gateway may then filter objects requested by the client during the session in accordance with the CPI transmitted from the client.

However, as explained in applicant's specification (pages 2-3), the CPI of the related art systems does <u>not</u> include information about a <u>residual amount of memory capacity</u> in the client. Thus, in the related art systems, an object is transmitted from the gateway to the client irrespective of a <u>residual amount</u> of memory capacity in the client. In such related art systems, if the residual amount of memory capacity in the client is less than a size of an object

transmitted from the gateway to the client, then either (i) the object must be <u>discarded</u> without being stored; or (ii) <u>other objects must be deleted</u> in the client so as to make room for the newly received object. If the object is discarded without being stored, then communication resources in transmitting the object have been wasted. If other objects are deleted to make room for the newly received object, there is a disadvantage in that important objects may be carelessly deleted.

An object filtering method in accordance with embodiments of the present invention addresses such a problem. As illustrated in applicant's FIG. 3, a method in accordance with an embodiment of the present invention allows for periodically monitoring a residual amount of memory capacity in a client during a session to provide a plurality of monitoring results. The residual amount of memory capacity in the client is an amount of unused memory capacity in the client that is free to accept data received by the client. Also, as illustrated in FIG. 3, a filtering condition may be notified from the client to a proxy server in accordance with at least one of the plurality of monitoring results. The proxy server may then filter an object requested by the client in accordance with the filtering condition thus notified, as is illustrated in applicant's FIG. 4.

By filtering objects in accordance with a residual amount of memory capacity in a client, communication resources between a proxy server and the client may be preserved, and careless data deletion by the client may be avoided.

#### B. Independent Claim 1:

Independent claim 1 captures the essence of embodiments as described above in the overview section, and can be summarized with reference to FIGs. 1, 3, and 4. As illustrated in FIG. 1, a client or terminal is able to request an object from a server, where the client accesses the server through a proxy server or gateway during a session.

As illustrated in FIG. 3, a <u>residual amount</u> of memory capacity in the client is <u>periodically monitored during the session</u> to provide a plurality of monitoring results. The residual amount of memory capacity in the client is an amount of unused memory capacity in the client that is free to accept data received by the client. (Applicant's Specification; page 3, lines 13-22; page 4, lines 17-23; page 8, line 13 – page 9, line 1).

Also, as illustrated in FIG. 3, a <u>filtering condition</u> is able to be notified from the client to the proxy server <u>in accordance with at least one of the plurality of monitoring results</u>. (Applicant's Specification; page 9, lines 2-8). As is illustrated in FIG. 4, the proxy server is able to filter an object in accordance with the filtering condition thus notified. (Applicant's Specification; page 9, line 9 – page 10, line 7).

As a result of such a method, for example, it may be possible to restrict a transmission of an object from a proxy server to a client when a residual amount of memory capacity in the client is less than a size of the object. Thus, communication resources between a proxy server and a client may be preserved, and careless data deletion by a client may be avoided.

# C. Independent Claim 12:

## i. Summary:

Independent claim 12 captures the essence of embodiments as described above in the overview section, and can be summarized with reference to FIGs. 1-3. As illustrated in FIG. 1, a client device or terminal allows for accessing a server through a proxy server or gateway during a session to request a desired object from the server. As illustrated in FIG. 2, the client device includes a control means or control portion for controlling an access to the proxy server to acquire the object, and the client device also includes a memory means or memory portion for storing the object.

As illustrated in FIG. 3, the control means may be configured to <u>periodically monitor</u> a <u>residual amount</u> of memory capacity of the memory means <u>during the session</u>. The residual amount of memory capacity is an amount of unused memory capacity of the memory means that is free to accept data received by the client device. (Applicant's Specification; page 8, line 11 – page 9, line 1). Also, as illustrated in FIG. 3, when the control means detects that the <u>residual amount</u> of memory capacity of the memory means is <u>equal to a predetermined residual amount or less</u>, the control means notifies to the proxy server a <u>filtering condition</u> of the object transmitted to the client device. (Applicant's Specification; page 8, line 19 – page 9, line 8).

# ii. Support for Means Recitations:

Claim 12 Means Recitations:	Corresponding Structure in Application:
control means for controlling an access to said proxy server to acquire the object	Control Portion; (Specification; page 7, lines 23-24; page 8, line 19 – page 9, line 8; page 11, lines 11-15; FIG. 2, reference 26).
memory means for storing the object	Memory Portion; (Specification; page 7, line 24 – page 8, line 1; page 8, line 19 – page 9, line 1; page 10, line 21 – page 12, line 15; FIG. 2, reference 27).

## D. Independent Claim 19:

Independent claim 19 recites a client device with features similar to features of a client device of independent claim 12. Therefore, the summary provided above with respect to independent claim 12 also applies with respect to independent claim 19.

#### VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL:

Claims 1 and 8-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Huang et al. (U.S. Patent No. 6,438,576) (hereinafter Huang).

Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang in view of Britton et al. (U.S. Patent No. 6,681,380) (hereinafter Britton).

Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang in view of Gauvin et al. (U.S. Patent No. 6,061,686) (hereinafter Gauvin).

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Huang in view of Eerola (U.S. Patent No. 6,678,518).

Claims 12, 16, 17, 19, 20, and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang in view of Ferguson (U.S. Patent No. 6,769,019).

Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang and Ferguson in view of Britton.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Huang and Ferguson in view of Gauvin.

Claims 18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang and Ferguson in view of Eerola.

#### VII. ARGUMENT:

#### A. Rejection of Claims 1 and 8-10 Under 35 U.S.C. 102(e):

## i. Claims 1 and 8-10:

Independent claim 1 recites an object filtering method for filtering an object, the object requested by a client from a server, the client accessing the server through a proxy server during a session, the method comprising:

"periodically monitoring a <u>residual amount</u> of memory capacity in the client <u>during said session</u> to provide a <u>plurality of monitoring results</u>, said residual amount of memory capacity being an amount of unused memory capacity in the client that is free to accept data received by the client;

notifying a filtering condition from the client to said proxy server <u>in</u> accordance with at least one of the plurality of monitoring results; and

filtering the object by said proxy server in accordance with the filtering condition thus notified." (Emphasis Added).

The Examiner points to col. 5, line 42 – col. 6, line 4 and col. 11, lines 15-55, of the Huang reference as disclosing, "periodically monitoring a residual amount of memory capacity in the client during said session to provide a plurality of monitoring results, said residual amount of memory capacity being an amount of unused memory capacity in the client that is free to accept data received by the client". (Office Action; page 3) (Emphasis Added).

However, the cited portions of the Huang reference neither disclose nor suggest periodically monitoring a residual amount of memory capacity in a client <u>during a session</u> to provide a plurality of monitoring results.

In the system of Huang, a client device is able to provide information about "device capabilities" of the client device to a proxy server along with an object request. (Huang; col. 5, line 42 – col. 6, line 4). Huang provides two examples of characteristics of a client device that may be stored at a proxy server, which are: (i) **type of display**; and (ii) **size of graphics memory**. (Huang; col. 5, lines 55-60). It is important to note that "type of display" does **not** provide information about a **residual amount** of memory capacity, and "size of graphics memory" does **not** provide information about a **residual amount** of memory capacity. (Huang; col. 11, lines 15-55). Moreover, there is no mention of **periodically monitoring** a residual amount of memory capacity in the cited portions of Huang. (Huang; col. 5, line 42 – col. 6, line 4; col. 11, lines 15-55).

Information about a <u>type of display</u> in the system of Huang refers to a <u>number of bits</u> of color encoding that can be displayed by a client device. (Huang; col. 11, lines 17-25). For example, a client device may only be able to display black-and-white images and, thus, display images with a 1-bit color encoding. (Huang; col. 11, lines 17-25). Such information about a "type of display" provides <u>no</u> information about a <u>residual amount</u> of memory capacity at the client device.

Information about a <u>size of graphics memory</u> in the system of Huang refers to a <u>maximum image size that can be displayed</u> by the client device. (Huang; col. 11, lines 17-25). For example, a client device may only be able to display an image size of up to 3M bytes. (Huang; col. 11, lines 17-25). Thus, such information is only concerned about a <u>resolution</u> of an image that can be displayed by a client device. (Huang; col. 1, lines 36-56). Such information about a "size of graphics memory" provides <u>no</u> information about a <u>residual amount</u> of memory capacity at the client device, where the residual amount of memory capacity is an amount of <u>unused</u> memory capacity in the client that is <u>free to accept data</u> received by the client.

Thus, Huang neither discloses nor suggests the claimed features of "<u>periodically</u> monitoring a <u>residual amount</u> of memory capacity in the client during said session to provide a plurality of monitoring results" and "notifying a filtering condition from the client to said proxy server <u>in accordance with at least one of the plurality of monitoring results</u>". (Emphasis Added).

As explained in applicant's specification (pages 1-2), applicant has already recognized that, in related art systems, capability and preference information provided to a gateway may include information about display size, color support ability, and image support ability. (Applicant's Specification; page 2, lines 4-7). However, applicant also recognized that, in such related art systems, objects are transmitted to a client irrespective of a variation of a residual amount of memory capacity in the client, which may lead to communication resources being wasted or unwanted data deletion. (Applicant's Specification; page 2, line 22 – page 3, line 7). The system of Huang has the exact problems that embodiments of the present invention seek to address.

In the "Response to Arguments" section of the current Office Action, the Examiner stated that, "when reviewing a reference the applicants should remember that not only the specific teachings of a reference but also reasonable inferences which the artisan would have logically drawn therefrom may be properly evaluated in formulating a rejection." (Office Action; page 13).

However, it is <u>not</u> a reasonable inference that <u>residual amount</u> of memory capacity would be included in the "device capabilities" of Huang. This can be concluded from the discussion in Huang about (i) the <u>types</u> of client device characteristics included as device capabilities, and (ii) <u>when</u> the device capabilities of the client device in Huang <u>can be</u> determined.

First, the types of client device characteristics included as device capabilities in the system of Huang demonstrate that the device capabilities for a client device only refer to **static** information about the client device. The characteristics mentioned by Huang are "type of display" and "size of graphics memory". (Huang; col. 5, lines 55-60). The "type of display" and "size of graphics memory" are <u>static</u> information that do not change over time and, thus, are <u>not periodically monitored</u>. In contrast, <u>residual amount</u> of memory capacity represents <u>dynamic</u> information that changes over time, and is <u>different</u> from the <u>static</u> information included as "device capabilities" in Huang.

Second, the <u>time</u> at which the device capabilities for a client device in Huang can be determined demonstrates that the device capabilities in Huang only include <u>static</u> information. Huang states that the characteristics of a client device can be stored in a table and that a proxy server can construct an RHI for the client device based on the information stored in the table.

(Huang; col. 5, lines 52-55). Then, Huang states that, "[t]he table entry for a particular client device 130, 131 can be stored when the device first registers with the ISP", and that, "[t]hereafter, the local proxy server receives an identifier of the client device when the client device makes a request, accesses the table, and constructs the appropriate RHI for inclusion with the object request." (Huang; col. 5, lines 60-65) (Emphasis Added).

By stating that the table entry for a particular client device <u>can be stored when the device first registers with the ISP</u>, Huang is acknowledging that the device capabilities information for the client device is <u>static</u> and will not change with time, because the table entry <u>is not updated based on dynamic information</u>. Indeed, the table entry is then later accessed by <u>using only an identifier</u> of a requesting client device and the RHI is constructed based on the information in the table. (Huang; col. 5, lines 53-54).

Thus, not only does Huang <u>fail to teach</u> the features of independent claim 1, but it also would <u>not</u> be a reasonable inference to extend the "device capabilities" of Huang to include periodically monitoring a <u>residual amount</u> of memory, because Huang is never concerned with a change in an amount of memory during a session.

Under 35 U.S.C. 102(e), to anticipate a claim, a reference must teach every element of the claim. (MPEP Section 2131). "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Huang does not teach the claimed features of "periodically monitoring a residual amount of memory capacity in the client during said session to provide a plurality of monitoring results" and "notifying a filtering condition from the client to said proxy server in accordance with at least one of the plurality of monitoring results". (Emphasis Added).

Thus, the rejection under 35 U.S.C. 102(e) cited above fails, and independent claim 1 is believed to be allowable. Because they depend from independent claim 1, dependent claims 8-10 are believed to be allowable for at least the same reasons that claim 1 is believed to be allowable.

## B. Rejection of Claims 2-4 Under 35 U.S.C. 103(a):

#### i. Claims 2-4:

Dependent claims 2-4 depend from independent claim 1 and, thus, are neither disclosed nor suggested by the Huang reference for at least the same reasons discussed above with respect to claim 1 in section VII.A.i.

Moreover, Britton does <u>not</u> cure the deficiencies with respect to the teaching of Huang, because Britton similarly <u>does not teach</u> the claimed features of "periodically monitoring a residual amount of memory capacity in the client during said session to provide a plurality of monitoring results" and "notifying a filtering condition from the client to said proxy server in accordance with at least one of the plurality of monitoring results". Indeed, a search of the Britton reference reveals that Britton does <u>not</u> even mention a "residual amount" of memory capacity. (Britton; abstract).

Therefore, dependent claims 2-4 are neither disclosed nor suggested by the Huang and Britton references, either alone or in combination. The Patent Office has not made out a *prima facie* case of obviousness and, thus, the rejection under 35 U.S.C. 103(a) cited above fails. Therefore, claims 2-4 are believed to be allowable.

#### C. Rejection of Claims 5-7 Under 35 U.S.C. 103(a):

## i. <u>Claims 5-7:</u>

Dependent claims 5-7 depend from independent claim 1 and, thus, are neither disclosed nor suggested by the Huang reference for at least the same reasons discussed above with respect to claim 1 in section VII.A.i.

Moreover, Gauvin does <u>not</u> cure the deficiencies with respect to the teaching of Huang, because Gauvin similarly <u>does not teach</u> the claimed features of "periodically monitoring a residual amount of memory capacity in the client during said session to provide a plurality of monitoring results" and "notifying a filtering condition from the client to said proxy server in accordance with at least one of the plurality of monitoring results". Indeed, a

search of the Gauvin reference reveals that Gauvin does <u>not</u> even mention a "residual amount" of memory capacity. (Gauvin; abstract).

Therefore, dependent claims 5-7 are neither disclosed nor suggested by the Huang and Gauvin references, either alone or in combination. The Patent Office has not made out a *prima facie* case of obviousness and, thus, the rejection under 35 U.S.C. 103(a) cited above fails. Therefore, claims 5-7 are believed to be allowable.

## D. Rejection of Claim 11 Under 35 U.S.C. 103(a):

## i. Claim 11:

Dependent claim 11 depends from independent claim 1 and, thus, is neither disclosed nor suggested by the Huang reference for at least the same reasons discussed above with respect to claim 1 in section VII.A.i.

Moreover, Eerola does <u>not</u> cure the deficiencies with respect to the teaching of Huang, because Eerola similarly <u>does not teach</u> the claimed features of "periodically monitoring a residual amount of memory capacity in the client during said session to provide a plurality of monitoring results" and "notifying a filtering condition from the client to said proxy server in accordance with at least one of the plurality of monitoring results". Indeed, a search of the Eerola reference reveals that Eerola does <u>not</u> even mention a "residual amount" of memory capacity. (Eerola; abstract).

Therefore, dependent claim 11 is neither disclosed nor suggested by the Huang and Eerola references, either alone or in combination. The Patent Office has not made out a *prima facie* case of obviousness and, thus, the rejection under 35 U.S.C. 103(a) cited above fails. Therefore, claim 11 is believed to be allowable.

# E. Rejection of Claims 12, 16, 17, 19, 20, and 22-24 Under 35 U.S.C. 103(a):

#### i. Claims 12, 16, 17, 19, 20, and 22-24:

Independent claim 12 recites a client device for accessing a server through a proxy server during a session to request a desired object from the server, the client device comprising:

"control means for controlling an access to said proxy server to acquire the object; and

memory means for storing the object,

wherein said control means is configured to <u>periodically monitor</u> a <u>residual amount</u> of memory capacity of said memory means <u>during said</u> <u>session</u>, said residual amount of memory capacity being an amount of unused memory capacity of the memory means that is free to accept data received by the client device; and

wherein, when said control means <u>detects</u> that said <u>residual amount</u> of memory capacity of said memory means is <u>equal to a predetermined residual amount or less</u>, said control means <u>notifies to said proxy server a filtering condition</u> of the object transmitted to the client device." (Emphasis Added).

Neither Huang nor Ferguson, alone or in combination, disclose or suggest a client device including the above-quoted features. A client device including the above-quoted features has features similar to features of an object filtering method of independent claim 1 and, thus, claim 12 is believed to be distinguished from the Huang reference for at least the same reasons indicated above with respect to claim 1 in section VII.A.i. Furthermore, the teaching of Ferguson does <u>not</u> cure the deficiencies with respect to the teaching of Huang.

The Examiner states that, "Ferguson teaches detecting that a residual amount of memory of said memory unit is equal to a predetermined residual amount or less said controller **notifies to said proxy server a filtering condition** for filtering the object, (e.g. col. 10, line 61 – col. 11, line 50)." (Office Action; page 10) (Emphasis Added).

However, contrary to the Examiner's assertion, the system of Ferguson <u>does not</u> notify to a proxy server a filtering condition based on a residual amount of memory. Indeed, the system of Ferguson is merely concerned with <u>downloading webpages</u> in the background during idle times and Ferguson is <u>not</u> concerned with notifying <u>filtering</u> conditions to a <u>proxy server</u> for <u>filtering objects</u>. (Ferguson; abstract).

In the system of Ferguson, a user sets the capacity of a local cache through an options menu. (Ferguson; column 7, lines 19-26). Then, when the system of Ferguson is downloading data in the background, the cache manager 410 determines the feasibility of a

new download, i.e., whether the current cache consumption is within the threshold of the total cache capacity. (Ferguson; column 11, lines 11-18). If a "Cache Full" condition is detected, the invention of Ferguson prompts a user with options. (Ferguson; column 11, lines 16-18). As illustrated in FIG. 17 of Ferguson and explained at column 11, lines 19-50 and column 27, line 45 to column 28, line 20 of Ferguson, the options that are presented to the user when there is a "Cache Full" condition in the system of Ferguson are:

- (1) "Cancel all flags on your Q-Links", which invokes an <u>auto-deletion</u> mechanism to generate cache space by unflagging all Q-links and <u>automatically deleting</u> cached Q-links and associated web pages by date in the order of oldest link and associated web page to newest link and associated web page, so as to make room in the local cache for newly selected Q-links; (Ferguson; column 27, lines 45-62);
- (2) "Go through Q-links and cancel selected flags", which allows the user to select which cached Q-links and associated web pages to <u>delete</u> from the local cache; (Ferguson; column 27, line 62 to column 28, line 2);
- (3) "Increase your storage limit", which allows the user to **change the capacity** of the local cache; (Ferguson; column 28, lines 2-17); and
- (4) "Ignore this message, and return to browser", which <u>ignores</u> the cache full condition and returns to the browser. (Ferguson; column 28, lines 18-20).

Thus, the four options presented upon a "Cache Full" condition in Ferguson are: (i) auto-deletion of web pages; (ii) allow user to select which web pages to delete; (iii) change the capacity of the cache; and (iv) ignore the cache full message. None of the options presented to the user for the "Cache Full" condition in the system of Ferguson allow for notifying to a proxy server a filtering condition for filtering an object. (Ferguson; FIG. 17; column 11, lines 19-50; column 27, line 45 to column 28, line 20).

As a result, a combined system of Huang and Ferguson would merely allow for a total size of graphics memory of a client device to be transmitted to a proxy for filtering objects as in Huang, and separately allow for "Cache Full" conditions of a local cache used for storing downloaded web pages to result in either web pages being <u>deleted</u> from a local cache or in a <u>capacity of the local cache being changed</u> as in Ferguson. (Huang; col. 5, lines 42-65)

(Ferguson; Fig. 17; col. 11, lines 19-50). A "Cache Full" condition in a combined system of Huang and Ferguson would have no affect on a <u>filtering condition</u>, because Huang merely uses a <u>total size of graphics memory</u> for a filtering condition, and Ferguson <u>does not notify a filtering condition to a proxy server</u> based on a "Cache Full" condition.

Therefore, neither Huang nor Ferguson, alone or in combination, disclose or suggest the claimed features of: (i) "wherein said control means is configured to periodically monitor a residual amount of memory capacity of said memory means during said session, said residual amount of memory capacity being an amount of unused memory capacity of the memory means that is free to accept data received by the client device"; and (ii) "wherein, when said control means detects that said residual amount of memory capacity of said memory means is equal to a predetermined residual amount or less, said control means notifies to said proxy server a filtering condition of the object transmitted to the client device." (Emphasis Added).

The Patent Office has not made out a *prima facie* case of obviousness and, thus, the rejection under 35 U.S.C. 103(a) cited above fails. Therefore, independent claim 12 is believed to be allowable. Because they depend from independent claim 12, dependent claims 16 and 17 are believed to be allowable for at least the same reasons that independent claim 12 is believed to be allowable.

Independent claim 19 recites a client device with features similar to features of a client device of independent claim 12 and, thus, is believed to be allowable for at least the same reasons that independent claim 12 is believed to be allowable. Because they depend from independent claim 19, dependent claims 20 and 22-24 are believed to be allowable for at least the same reasons that claim 19 is believed to be allowable.

## F. Rejection of Claims 13 and 14 Under 35 U.S.C. 103(a):

#### i. Claims 13 and 14:

Dependent claims 13 and 14 depend from independent claim 12 and, thus, are neither disclosed nor suggested by the Huang and Ferguson references for at least the same reasons discussed above with respect to claim 12 in section VII.E.i.

Moreover, Britton does <u>not</u> cure the deficiencies with respect to the teachings of Huang and Ferguson, because Britton similarly <u>does not teach</u> the claimed features of (i) "wherein said control means is configured to periodically monitor a residual amount of memory capacity of said memory means during said session, said residual amount of memory capacity being an amount of unused memory capacity of the memory means that is free to accept data received by the client device"; and (ii) "wherein, when said control means detects that said residual amount of memory capacity of said memory means is equal to a predetermined residual amount or less, said control means notifies to said proxy server a filtering condition of the object transmitted to the client device." Indeed, a search of the Britton reference reveals that Britton does <u>not</u> even mention a "residual amount" of memory capacity. (Britton; abstract).

Therefore, dependent claims 13 and 14 are neither disclosed nor suggested by the Huang, Ferguson, and Britton references, either alone or in combination. The Patent Office has not made out a *prima facie* case of obviousness and, thus, the rejection under 35 U.S.C. 103(a) cited above fails. Therefore, claims 13 and 14 are believed to be allowable.

## G. Rejection of Claim 15 Under 35 U.S.C. 103(a):

#### i. Claim 15:

Dependent claim 15 depends from independent claim 12 and, thus, is neither disclosed nor suggested by the Huang and Ferguson references for at least the same reasons discussed above with respect to claim 12 in section VII.E.i.

Moreover, Gauvin does <u>not</u> cure the deficiencies with respect to the teachings of Huang and Ferguson, because Gauvin similarly <u>does not teach</u> the claimed features of (i) "wherein said control means is configured to periodically monitor a residual amount of memory capacity of said memory means during said session, said residual amount of memory capacity being an amount of unused memory capacity of the memory means that is free to accept data received by the client device"; and (ii) "wherein, when said control means detects that said residual amount of memory capacity of said memory means is equal to a predetermined residual amount or less, said control means notifies to said proxy server a filtering condition of the object transmitted to the client device." Indeed, a search of the

Gauvin reference reveals that Gauvin does <u>not</u> even mention a "residual amount" of memory capacity. (Gauvin; abstract).

Therefore, dependent claim 15 is neither disclosed nor suggested by the Huang, Ferguson, and Gauvin references, either alone or in combination. The Patent Office has not made out a *prima facie* case of obviousness and, thus, the rejection under 35 U.S.C. 103(a) cited above fails. Therefore, claim 15 is believed to be allowable.

#### H. Rejection of Claims 18 and 21 Under 35 U.S.C. 103(a):

# i. Claims 18 and 21:

Dependent claim 18 depends from independent claim 12 and, thus, is neither disclosed nor suggested by the Huang and Ferguson references for at least the same reasons discussed above with respect to claim 12 in section VII.E.i.

Moreover, Eerola does <u>not</u> cure the deficiencies with respect to the teachings of Huang and Ferguson, because Eerola similarly <u>does not teach</u> the claimed features of (i) "wherein said control means is configured to periodically monitor a residual amount of memory capacity of said memory means during said session, said residual amount of memory capacity being an amount of unused memory capacity of the memory means that is free to accept data received by the client device"; and (ii) "wherein, when said control means detects that said residual amount of memory capacity of said memory means is equal to a predetermined residual amount or less, said control means notifies to said proxy server a filtering condition of the object transmitted to the client device." Indeed, a search of the Eerola reference reveals that Eerola does <u>not</u> even mention a "residual amount" of memory capacity. (Eerola; abstract).

Therefore, dependent claim 18 is neither disclosed nor suggested by the Huang, Ferguson, and Eerola references, either alone or in combination. The Patent Office has not made out a *prima facie* case of obviousness and, thus, the rejection under 35 U.S.C. 103(a) cited above fails. Therefore, claim 18 is believed to be allowable.

Dependent claim 21 depends from independent claim 19 and, thus, is neither disclosed nor suggested by the Huang and Ferguson references for at least the same reason provided above with respect to claim 19 in section VII.E.i.

Moreover, Eerola does not cure the deficiencies with respect to the teachings of Huang and Ferguson, because Eerola similarly does not teach the claimed features of (i) "wherein said controller is configured to periodically monitor a residual amount of memory capacity of said memory unit during said session, said residual amount of memory capacity being an amount of unused memory capacity of the memory unit that is free to accept data received by the client device"; and (ii) "wherein, when said controller detects that said residual amount of memory capacity of said memory unit is equal to a predetermined residual amount or less, said controller notifies to said proxy server a filtering condition for filtering the object." Indeed, a search of the Eerola reference reveals that Eerola does not even mention a "residual amount" of memory capacity. (Eerola; abstract).

Therefore, dependent claim 21 is neither disclosed nor suggested by the Huang, Ferguson, and Eerola references, either alone or in combination. The Patent Office has not made out a prima facie case of obviousness and, thus, the rejection under 35 U.S.C. 103(a) cited above fails. Therefore, claim 21 is believed to be allowable.

# **CONCLUSION:**

For the foregoing reasons, applicant respectfully requests the Board of Patent Appeals to overturn all of the rejections.

Respectfully submitted,

By Ant Shi Date <u>December 11, 2006</u>

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## VIII. CLAIMS APPENDIX:

1. (Previously Presented) An object filtering method for filtering an object, the object requested by a client from a server, the client accessing the server through a proxy server during a session, the method comprising:

periodically monitoring a residual amount of memory capacity in the client during said session to provide a plurality of monitoring results, said residual amount of memory capacity being an amount of unused memory capacity in the client that is free to accept data received by the client;

notifying a filtering condition from the client to said proxy server in accordance with at least one of the plurality of monitoring results; and

filtering the object by said proxy server in accordance with the filtering condition thus notified.

- 2. (Previously Presented) The object filtering method as claimed in claim 1, wherein the filtering condition is notified from the client to said proxy server after an elapse of a predetermined time period since a previous notification.
- 3. (Previously Presented) The object filtering method as claimed in claim 2, wherein the predetermined time period is freely set from an external source.
- 4. (Previously Presented) The object filtering method as claimed in claim 1, wherein the filtering condition is valid only for a predetermined time period after the proxy server is notified of the filtering condition.
- 5. (Original) The object filtering method as claimed in claim 1, wherein the filtering condition is represented by a filename extension of the object.
- 6. (Original) The object filtering method as claimed in claim 5, wherein said proxy server prohibits only a file having the filename extension notified from the client as the filtering condition from being transmitted to the client.

- 7. (Original) The object filtering method as claimed in claim 5, wherein said proxy server allows only a file having no filename extension notified from the client as the filtering condition to be transmitted to the client.
- 8. (Previously Presented) The object filtering method as claimed in claim 1, wherein the filtering condition is represented by a data length of the object.
- 9. (Previously Presented) The object filtering method as claimed in claim 8, wherein said proxy server prohibits a file having a data length exceeding the data length notified from the client as the filtering condition from being transmitted to the client.
- 10. (Original) The object filtering method as claimed in claim 1, wherein the client is a cellular phone terminal.
- 11. (Original) The object filtering method as claimed in claim 1, wherein said proxy server is a gateway server for WAP (Wireless Application Protocol).
- 12. (Previously Presented) A client device for accessing a server through a proxy server during a session to request a desired object from the server, the client device comprising: control means for controlling an access to said proxy server to acquire the object; and

memory means for storing the object,

wherein said control means is configured to periodically monitor a residual amount of memory capacity of said memory means during said session, said residual amount of memory capacity being an amount of unused memory capacity of the memory means that is free to accept data received by the client device; and

wherein, when said control means detects that said residual amount of memory capacity of said memory means is equal to a predetermined residual amount or less, said control means notifies to said proxy server a filtering condition of the object transmitted to the client device.

- 13. (Previously Presented) The client device as claimed in claim 12, wherein said control means periodically notifies filtering conditions to said proxy server at predetermined time periods.
- 14. (Previously Presented) The client device as claimed in claim 13, wherein the predetermined time periods are freely set from an external source.
- 15. (Original) The client device as claimed in claim 12, wherein the filtering condition is represented by a filename extension of the object.
- 16. (Previously Presented) The client device as claimed in claim 12, wherein the filtering condition is represented by a data length of the object.
- 17. (Previously Presented) The client device as claimed in claim 12, wherein said client device is a cellular phone terminal.
- 18. (Previously Presented) The client device as claimed in claim 12, wherein said client device is a WAP (Wireless Application Protocol) terminal.
- 19. (Previously Presented) A client device for accessing a server through a proxy server during a session to request a desired object from the server, the client device comprising:

a controller for controlling an access to said proxy server to acquire the object; and a memory unit for storing the object;

wherein said controller is configured to periodically monitor a residual amount of memory capacity of said memory unit during said session, said residual amount of memory capacity being an amount of unused memory capacity of the memory unit that is free to accept data received by the client device; and

wherein, when said controller detects that said residual amount of memory capacity of said memory unit is equal to a predetermined residual amount or less, said controller notifies to said proxy server a filtering condition for filtering the object.

- 20. (Previously Presented) The client device of claim 19, wherein the filtering condition is represented by a data length of the object.
- 21. (Previously Presented) The client device of claim 19, wherein the controller is configured to establish the session between the client device and the proxy server using WSP (Wireless Session Protocol).
- 22. (Previously Presented) The client device of claim 19,

wherein the controller is configured to establish the session between the client device and the proxy server; and

wherein the session is maintained until the session is terminated by the client device or the proxy server.

23. (Previously Presented) The client device of claim 19,

wherein the residual amount of memory capacity of the memory unit is able to change as data is stored in said memory unit.

24. (Previously Presented) The client device of claim 19,

wherein the residual amount of memory capacity of the memory unit is less than a total amount of memory capacity of the memory unit.

# IX. EVIDENCE APPENDIX:

No evidence is being submitted pursuant to 37 CFR §§ 1.130, 1.131, or 1.132. There is no evidence for the evidence appendix.

# X. RELATED PROCEEDINGS APPENDIX

There are no related appeals or interferences, so there are no copies of decisions needed for the related proceedings appendix.